Database Project Phase II

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Database
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Overview

During this phase, we were assigned to create a dynamic dashboard/interface to read and write data from/in our database. Our imagined scenario was that this dashboard is used by the restaurant's manager and/or admin assigned to the job.

Design decisions

1. The dashboard is separated by the action the admin will choose: Insert, Delete, Update, View.

2. In the insert page, the admin can choose what table to insert the data in. if the id of that table already exists, it will not insert the information.

3. In the update page, the admin can choose what table to insert the data in. if the id of that table does not exist, it will not take any action.

4. In the delete page, the admin can choose what table to insert the data in. if the id of that table does not exist, it will not delete anything.

5. The admin can check the status of every table in the view page.

6. If the admin desires to run a more complex query and see the result, there's also a section in the view page for writing desired queries and viewing the result.

Specifications and Requirements

In each page, the admin can choose the table or the section of the database they want the access to, and then continue to add the necessary information and submit the details and values using the submit button.

Designing a user friendly front-end

Our project was implemented using python's streamlit's library and we designed the dashboard using the library's functions. We used html and css commands for further designing the dashboard.

Designing a back-end

We used python's streamlit's library for designing the models, classes and functions that the dashboard operates upon.

Connection to database

We made sure there was a sustainable connection to the database.

Insertion and deletion of data

These actions have their own pages in the dashboard. And the admin can choose different tables to insert/delete data.

Updating the data

This action also has its own page in our dashboard.

Testing

Once the admin has manipulated the data in their desired way, they can view the updated table in the View page. We also checked the updated information in the database to make sure of the submission.

Database Schema

Database's schema is available in the repository alongside all the codes for this phase of the project.

Github Repository